

ORIGINAL

No. 455R1

Activated: 4/1/65

THE COUNCIL FOR TOBACCO RESEARCH - U.S.A.

633 THIRD AVENUE  
NEW YORK, N. Y. 10017

COMMITTEE:

Dr. Sommers, Chm.  
Dr. Cattell  
Dr. Little

Application For Research Grant

Date: August 25, 1967

1. Name of Investigator(s): (Include Title and Degrees)

Co-principal Investigators: Benjamin Bell, M.D. and Charles L. Rose, A.M.:  
Director and Assistant Director respectively of Normative Aging Study.

2. Institution &

Address:

Veterans Administration Outpatient Clinic  
17 Court Street, Boston, Massachusetts 02108

3. Short Title of Project:

Supplementary Assistance to the Normative Aging and Longevity Study.

4. Proposed Starting Date:

October 1, 1967

5. Anticipated Duration of this Specific Study:

Twelve months

6. Brief Description of Objectives or Specific Aims:

The objectives and specific aims of the Normative Aging Study have already been inserted into the literature under the title: "The Veterans Administration Longitudinal Study of Healthy Aging", and reprints are attached. Briefly, this is a large scale longitudinal aging study sponsored by the Veterans Administration with a budget in excess of \$154,000 per year. The supplementary assistance we are requesting is primarily for "seed money" purposes. The Study is still in its beginning formative stages, and is expected to grow and enlarge particularly over the next five years. "Seed money" at this early stage will assist us in making possible this development. In addition to the "seeding" concept through which small grants make possible subsequent budgetary development many times over, the Normative Aging Study as an ongoing program also makes possible the "piggy backing" principle, through which modest funds from funding source A (e.g. The Council for Tobacco Research) are added to the larger funds already appropriated by funding source B (e.g. The Veterans Administration) so that the net result is many times the augmentation factor contributed by A. We are also stretching our research dollar through our policy of cross-linking with other studies. We utilize the sophisticated resources of the Retina Foundation in ophthalmological research at negligible cost to the Study. The Retina Foundation benefits by having our study population made available to them including administrative services of scheduling and record keeping as well as other data which have been collected on our Subjects. The same sort of arrangement has been worked out with the Psychiatric Department of the Mass. General Hospital in the field of Information Processing of the Central Nervous System. Most recently we have linked up with the Longitudinal Studies of the Gerontology Branch of NICHD in Baltimore through the establishment of a Joint Scientific Committee so that these two major studies might coordinate their procedures and produce findings on combined data.

For the rationale and accomplishments of the Normative Aging Study, the reader is

7. Give a brief statement of your working hypothesis. Additional material on the development and accomplishments of the Study are contained in the official reports of the last three years, and copies

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8. Details of Experimental Design and Procedures: (Attach Separate Pages)  
Continuation of 6&7.

of these are also attached. A special aspect of the Normative Aging Study is the problem of developing statistical tools for multivariate analysis, and development of the more involved and virtually unknown area of multivariate treatment of time series (longitudinal) data. The solutions to these problems will be applicable to all complex aging and other biomedical studies whether they take place at one point in time or multiple points in time.

8. Details of Experimental Design and Procedures: (Attach Separate Pages)

Funds requested to carry out the proposed procedures are described in attachment sheet. The emphasis of requested funding is in the exploration of feasibility and development of methodology.

9. Physical Facilities Available (Where Other than Administering Organization Indicate Geographical Location):

The physical facilities of the Boston VA Outpatient Clinic and those of collaborating investigators in nearby hospitals and universities are available.

10. Additional Requirements:

The continuing relationship of the Council for Tobacco Research with Kurt Enslein, an internationally known specialist in biomedical applications of computers, is indispensable to the development of our data acquisition and computational program. The statistical, programming, and computer resources offered by Mr. Enslein is at the top of the "State of the Art" in computer technology. For example, Mr. Enslein's data link with the computer of the Smithsonian Astrophysical Laboratory in Cambridge provides the best computational services of its kind available anywhere.

11. Biographical sketches of all principal and professional personnel (append)

Biographical sketches of the principal co-investigators are appended.

12. List of publications: (Five most recent as pertinent) (append):

List of five most recent relevant publications is appended, on attachment sheet.

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3.  
13. Budget: (1st year)

See attachment sheets

A. Salaries (Personnel by names)  
Professional

% time

Amount

Technical:

Sub-Total

B. Consumable Supplies (list by categories)

Sub-Total

C. Other Expenses (itemize)

Sub-Total

D. Permanent Equipment (itemize)

Total

E. Overhead (15% of A + B + C)

Estimated Future Requirements:

|        | Salaries | Consumable Suppl. | Other Expenses | Permanent Equip. | Overhead | Total |
|--------|----------|-------------------|----------------|------------------|----------|-------|
| Year 2 |          |                   |                |                  |          |       |
| Year 3 |          |                   |                |                  |          |       |

It is understood that the applicant and institutional officers in applying for a grant have read and found acceptable the Council's "Statement of Policy Containing Conditions and Terms Under Which Project Grants Are Made."

Signature

Director of Project

Signature

Business Officer of the Institution

Telephone

Telephone

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# Other Sources of Financial Support

List financial support for research from all sources, including own institution, for this and/or related research projects.

Current

| Title of Project      | Source                  | Amount    | Duration   |
|-----------------------|-------------------------|-----------|------------|
| Normative Aging Study | Veterans Administration | \$154,000 | Indefinite |

Pending

None

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ATTACHMENT SHEET

Item 8: PROPOSED PROCEDURES

- (1) The funding of a part time technician for neurophysiologic studies at the Massachusetts General Hospital which would amount to 10% of the total costs of the Study. The remainder of the costs would be absorbed by available equipment and investigators at the Massachusetts General Hospital. The Study involves evoked potential and EEG investigations which have never been carried out longitudinally. The evoked potential study consists of electro-encephalographic recording of electrical discharge from the brain evoked by a stimulus. The processing of the data involves a special purpose computer which carries out on line calculations so that directions and amplitudes of the stimulus might be varied.
- (2) The funding of development of instrumentation to photograph a magnified image of the peripheral retina and choroid. The funding would involve less than 10% of the total cost with the Retina Foundation picking up the remainder. The Retina Foundation is world famous for its development of instrumentation and has available sophisticated biomedical engineers and well equipped laboratories and workshops. The objective of this proposal is to develop means for objective representation and measurement of the peripheral retinal vasculature and choriocapillaries.
- (3) The funding of a special method of pulse registration with automated calculation of systolic slope, as a predictor of peripheral vascular occlusion. The problem here is to fund the services of a part time physician. The sophisticated apparatus to carry out this procedure is already available at the Surgical-Vascular Laboratory of the Peter Bent Brigham Hospital.
- (4) Funding of services by part time physicians to accomplish unforeseen jobs that come up in research development, such as reading EKG's, interpreting medical records to generate coded quantified data, and X-ray reading.
- (5) Funding of technical aspects of manuscript preparation such as photographs, drawings, graphs, slides, bibliographic materials, etc. Also, funding costs of obtaining official documents such as birth and death certificates and hospital records.
- (6) Funding of travel for professional meetings and local travel for searching hospital or other official records.

Item 12: Publications

- (1) B. Bell, C.L. Rose and A. Damon "The VA Longitudinal Study of Healthy Aging." Gerontologist 6:179-184, Dec 1966.
- (2) C.L. Rose, R. Nuttall and K. Enslein "Methodologic Problems in Prediction of Longevity" Proc 7th Int. Congress of Gerontology 7:255-258 Vienna, 1966.

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Item 12: Publications (Continued)

- (3) C.L. Rose and B. Bell "Selection of Geographically Stable Subjects in Longitudinal Studies of Aging" J.Amer. Geriat. Soc. 12:143-151, 1965.
- (4) C.L. Rose "Representativeness of Volunteer Subjects in a Longitudinal Study of Aging" Hum.Dev. 8:152-156, 1965.
- (5) C.L. Rose "Social Factors in Longevity" Gerontologist 4:27-37, 1964.

Item 13: Budget

In view of the need for flexibility and the principles of supplementary fund use as described in item 8, it would be difficult a priori to specify each item in the budget, so that a general budget is offered instead:

A total of \$18,500 is requested broken down as follows:

|                                            |           |     |
|--------------------------------------------|-----------|-----|
| A. Personnel                               | - - - - - | 20% |
| B. Consumable Supplies                     | - - - - - | 30% |
| C. Other expenses (Services, travel, etc.) | - - -     | 50% |
| D. Equipment                               | - - - - - | 0%  |
| E. Overhead                                | - - - - - | 0%  |

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Biographical Sketch

BELL, Benjamin

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| <u>DATES</u> | <u>PLACE</u>                                                                                   | <u>POSITION OR DEGREE</u>                  |
|--------------|------------------------------------------------------------------------------------------------|--------------------------------------------|
| 1924 to 1928 | Boston Latin School.                                                                           |                                            |
| 1932         | Harvard College                                                                                | A.B., cum laude, in Biochemical Sciences   |
| 1936         | Jefferson Medical College Philadelphia                                                         | M.D.                                       |
| 1936 to 1938 | Jefferson Medical College Hospital, Philadelphia                                               | House Officer, (Surgical)                  |
| 1938 to date | Massachusetts Medical Society; Norfolk District Medical Society; American Medical Association. | Member                                     |
| 1939 to 1940 | Massachusetts General Hospital, Boston                                                         | Graduate Assistant                         |
| 1940 to 1942 | Boston Dispensary, Boston                                                                      | Graduate Assistant (ENT)                   |
| 1941         | Rhinoplasty course (Foman).                                                                    |                                            |
| 1942 to 1946 | Military Hospitals, Army of United States                                                      | Chief of EENT.                             |
| 1946 to 1947 | Boston City Hospital Aural Service                                                             | Basic Science Course                       |
| 1946 to date | Veterans Administration Outpatient Clinic, Boston                                              | Chief, EENT Service                        |
| 1960 to date | Veterans Administration Outpatient Clinic, Boston                                              | Chief of Staff                             |
| 1960 to 1962 | Clinical Associate in Otolaryngology, Boston University School of Medicine                     |                                            |
| 1962 to date | Boston University School of Medicine                                                           | Asst. Clinical Professor of Otolaryngology |
| 1962 to date | Boston University School of Medicine                                                           | Lecturer on Ophthalmology                  |
| 1963 to date | Veterans Administration Outpatient Clinic, Boston                                              | Chief, Normative Aging Study               |

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#### PUBLICATIONS

- Pertzoff, V.A.; and Bell, B.: Un Historique Des Premieres Recherches Sur La Composition De La Caseine, Le Lait, 113:161-172 (March) 1932.
- Bell, B.: Office Ophthalmology - Normal Fundi, Mass. G. Practice News, IV, 3:6-9 (May) 1956.
- Bell, B.: Office Ophthalmology - Abnormal Fundi, Mass. G. Practice News, IV, 4:3-5 (July) 1956.
- Bell, B.; Hill, G.E.; and Wyeth, J.H.: Mobilization of Stapes Operation for Deafness due to Clinical Otosclerosis, Medical Research in the Veterans Administration, 2:736-737 (May) 1959.
- Bell, B.; and Covell, L.L.: Effect of Systemic Corticosteroid Therapy on Intraocular Pressure, Medical Research in the Veterans Administration, 2:736 (May) 1959.
- Bell, B.; Harrison, R.; Trotter, R.R.; and Wolfe, E.: Aqueous Dynamics in 107 Spanish-American War Veterans, presented at National Veterans Administration Research Conference in Cincinnati December 1961; Abstract, Journal of Gerontology, October 1962.
- Harrison, R.E., Wolf, E., and Bell, B.: Ocular studies with special reference to glaucoma in a group of 107 elderly males, Am. J. Ophthalmology 57:235-240, 1964.
- Rose, C.L., and Bell, B.: Selection of Geographically Stable Subjects in the Longitudinal Study of Aging, J. of the Am. Geriatric Society, February 1965.

#### PROFESSIONAL COMMUNITY RELATIONS

Invited Lecturer to Clinical Assemblies (1955, 1960 & 1961) of American Academy of General Practice (Mass. Chapter), Mass. Speech and Hearing Society (1960), Rehabilitation Seminar at Boston College (1961), Medical TV (You and Your Health, 1954), and Radio Programs (Ask the Doctor, and Medical Forum of the Air, 1959 to 1961), Task Force on Aging of Mass. Mental Health Planning Project, 1963-1964.

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## CURRICULUM VITAE

Name:

Charles L. Rose

Address:

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Birth:

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Current Position:

Research Associate, Dept. of Sociology,  
Tufts University, Medford, Massachusetts  
(Since April 1960)  
Research Social Worker, VA Outpatient  
Clinic, 17 Court St., Boston, Massachusetts  
(Since November 1960)  
Instructor, Northeastern University,  
University College, Boston, Massachusetts  
(Since 1962)

Education:

A. B., Harvard, 1937 - Psychology  
A. M., University of Chicago, 1946, Graduate  
School of Social Service Administration

Past Professional Experience:

Social Worker, Bureau of Public Welfare,  
Chicago, 1938-1942; Guidance Counselor,  
Illinois State Training School for Boys,  
1942-1945; Social Worker, VA Hospital,  
West Roxbury, 1946-1949; Supervisor, VA Hospital,  
Medford, 1949-1960; Principal Investigator,  
"Attitudes of Relatives of Mental Patients",  
Supported by NIMH under Grant M4026, 1960-1962

Societies:

National Association of Social Workers  
N. E. Society for Research in Psychiatry  
Boston Society for Gerontologic Psychiatry

## PUBLICATIONS

1. "Corrective Physical Rehabilitation - An Effective Approach"  
Mil. Surg. 103:125-135, 1948
2. "Effectiveness of the Hospital Conference in Rehabilitation"  
J. Assoc. Ther. & Rehab. 28:245-259, 1949
3. "A Dynamic Group Experience in a Hospital Paraplegic Unit"  
Mil. Surg. 109:712-720, 1951
4. "A Study of Readmissions to a Mental Hospital",  
Medford Research, August 1952
5. "Return of Psychiatric Patients to the Community"  
Medford Research, March 1953

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Charles L. Rose: (Continued Publications)

6. "Group Research by Student Social Workers",  
J. Psychiat. Soc. Wk. January 1954
7. "Social Service and Corrective Therapy"  
J. Ass'n. Phys. & Ment. Rehab. 9:85-88, 1955
8. "Relatives' Attitudes and Mental Hospitalization",  
Mental Hyg. April 1958
9. "Attitudes of Relatives of Mental Patients", read at  
Mass. Conference of Social Work, Boston, Mass.,  
November 5, 1959
10. "Intercorrelation of Medical, Anthropometric and Social  
Indices in Octogenarians", read at International Congress  
of Gerontology, Copenhagen, August 1963
11. "Impact of Sons' Mental Illness on Older Parents",  
read at Gerontological Society Annual Meeting,  
Boston, Mass., November 1963
12. "Social Factors in Longevity",  
The Gerontologist 4:27-37, 1964
13. "Social Correlates of Longevity", Ch. 5 in  
R. Kastenbaum (ed), New Thoughts on Old Age,  
Springer, N. Y., 1964
14. "Selection of Geographically Stable Subjects in the  
Longitudinal Study of Aging",  
J. Am. Geriatr. Soc. forthcoming

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